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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/649,088	08/07/2000	Shrikumar Hariharasubrahmanian	SHRIKUMAR	5951
7590	05/16/2005		EXAMINER BLOUNT, STEVEN	
ROBERT A. CESARI CESARI AND MCKENNA, LLP 88 BLACK FALCON AVENUE BOSTON, MA 02201			ART UNIT 2661	PAPER NUMBER

DATE MAILED: 05/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/649,088

Applicant(s)

HARIHARASUBRAHMANYAN,  
SHRIKUMAR

Examiner

Steven Blount

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 21 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1 - 31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 18 - 20 is/are allowed.
- 6) ☒ Claim(s) 1 - 17 and 21 - 31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2/14/2005 has been entered.

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 8, 11, 14, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent 6,731,632 to Takahashi et al.

With regard to claim 8, Takahashi et al teaches the invention including generating a pseudo-header. See col 1, lines 45 to 53. It is noted that the pseudo-header is formatted in accordance with a protocol which is different than that of the frame into which it is inserted. Takahashi also teaches that the extra header is inserted "to" the data field (col 1, line 48) which suggests either at the start or end of the data field. The examiner believes that, while it is not explicitly stated that the pseudoheder is inserted *before* the protocol data field, it would, however, have been obvious at the time

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of the invention to insert it after the protocol header and before the data field in view of the above teaching (to the data field), as well as the fact that it is well known in the art to encapsulate protocols by attaching them successively to the front of the header, wherein all of the "headers" come before the data field. Also, the examiner notes that octets are a common method of formatting data for transmission.

With regard to claim 11, see the discussion of claim 8 above, and note that the process would of necessity be required to be implemented in software in order to ensure its repeatability.

With regard to claim 14, note the use of TCP in figure 20.

With regard to claim 30, note that there is an application layer discussion in col 7 lines 30+ of Takahashi et al.

3. Claims 1, 3, 4, 5, 7, 9, 10, 12, 13, 16, and 21, 22, and 26 – 29 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent 6,731,632 to Takahashi et al in view of U.S. patent 6,711,743 to Hong et al.

With regard to claim 1, Takahashi et al teach the invention as described above, including generating and inserting a "pseudo-header" to the data field of a frame, wherein the pseudo-header is formatted in accordance with a protocol which is different than that of the frame into which it is inserted. See column 1 lines 45+. Takahashi et al also teach transmitting the frame.

Takahashi et al do not, however, teach determining the validity of the received packet based on at least one additional step after reception of the packet.

Hong et al teach the well known act of detecting errors by examining the reply packets for CRC errors. See col 4 lines 57+.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have determined the correctness of the frames (packets) sent in Takahashi et al by examining reply packets for CRC errors, in light of the teachings of Hong et al, in order to ensure that the data that is of the proper integrity.

With regard to claim 3, see the discussion of the pseudo-header above.

With regard to claim 4, the constraints are associated with the different protocol.

With regard to claim 5, note the use of TCP in figure 20.

With regard to claim 7, note that the additional header is created.

With regard to claim 9, note the discussion of a reply in Hong above.

With regard to claim 10, note the discussion of checking above.

With regard to claims 12 – 13, see discussion of claim 11 and the use of a reply packet above.

With regard to claim 16, see discussion of TCP above.

With regard to claim 21, see the discussion above regarding the use of a different protocol, and especially col 1 lines 58+: "whose protocol is different than network A's". Note also the use of reply packets in Hong as discussed above.

With regard to claim 22, see discussion of claim 5.

With regard to claim 26, see the discussion of claims 1 and 21 above, and note that there is a logical implementation in Takahashi et al and Hong et al for implementing it.

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With regard to claim 27 - 29, see discussion of constraints above.

With regard to claim 31, it would be obvious to have the additional constraint associated with a additional procedure.

4. Claims 2, 6, 17, 23, and 24 - 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent 6,731,632 to Takahashi et al in view of U.S. patent 6,711,743 to Hong et al as applied above to claims 1, 3, 4, 5, 7, 9, 10, 12, 13, 16, 21, 22, and 26 – 31, and further in view of the applicants admitted prior art (AAPA).

With regard to claim 2, Takahashi et al/Hong et al teach the invention as described above, but do not teach formatting in accordance with the UDP protocol.

AAPA discusses problems in the prior art associated with "Some communication devices, such as mini-computers, micro-controllers, and microcomputers, lack sufficient local memory to store the information associated with these protocols" (page 4, second paragraph). AAPA also discusses that "these" protocols are associated with UDP. See page 3, third paragraph.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have applied the protocol processing method taught in Takahashi/Hong and its associated memory savings which result to the UDP protocol, in light of the teachings of AAPA, in order to process UDP packets in an environment which requires less memory.

With regard to claim 6, see the discussion of UDP above.

With regard to claims 17, 23, and 24, again see the discussion of UDP above.

With regard to claim 25, see the use of TCP in figure 20 of Takahashi.

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5. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent 6,731,632 to Takahashi et al as applied above to claims 8, 11, 14, and 30, and further in view of the Applicants Admitted Prior Art (AAPA).

Takahashi teaches the invention as described above, but does not teach carrying out the invention in a UDP environment. AAPA teaches the use of UDP in the problem environment. It would have been obvious to one of ordinary skill in the art at the time of the invention to have transmitted the packets of Takashi in a UDP environment, in light of the teachings of AAPA, in order to provide a computer readable medium which operates in a wider variety of protocols.

6. Claims 18 – 20 are allowed.

7. Applicants remarks are moot in view of the new grounds of rejection.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven Blount whose telephone number is 703-305-0319. The examiner can normally be reached on M-F 9:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Chau Nguyen, can be reached on 571 – 272 - 3071. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
**Ajit Patel**  
**Primary Examiner**

SB  
  
5/9/05